Appendix B: Comments on Proposed SB 656 PM Implementation Schedule

WRITTEN COMMENTS RECEIVED

ISSUE COMMENT STAFF RESPONSE

- 1 Compliance with SB 656
- Ken Mandelbaum (email: October 18, 2005):

 1). The law requires that "Each plan prepared pursuant to this chapter shall include an assessment of the cost effectiveness of available and proposed control measures and shall contain a list which ranks the control measures from the least cost-effective to the most cost-effective." In the public meeting, the District stated that this list was never prepared.
- 1). The Health and Safety Code and ARB SB 656 guidance direct air districts to prioritize the list of new measures scheduled to be adopted based on cost effectiveness, not to prioritize every measure on the list of 103 measures based on cost-effectiveness. Health and Safety Code Section 39614 (d)(2) (A) states that districts shall "Prioritize adoption and implementation of proposed control measures based on the effect individual control measures will have on public health, air quality, and emission reductions, and on the cost-effectiveness of each control measure (emphasis added)." The District has developed the proposed PM Implementation Schedule based on these criteria.

Compliance with SB 656

- 2). The law states that: "An implementation schedule adopted by a district pursuant to this subdivision may not include a control measure that meets any of the following criteria: (A) Is substantially similar to a control measure already adopted by the district." In the District's proposed implementation schedule, the District has proposed to adopt ARB Control Measure Number 1, a public awareness program on wood burning. However, the BAAQMD has already had a wood burning public
- 2). This section of SB 656 directs air districts to not adopt a measure on the State's list if the district already has a similar measure or program currently being implemented or scheduled for implementation within 2 years. The District does currently have a public awareness program for wood burning. The District intends, however, to substantially increase our public outreach and education efforts regarding wood burning. These activities will include: increased outreach to broadcast and print media;

awareness program in place. When asked at the public workshop what additional budgetary resources or staff were being added to this effort in order to make it a "new or amended measure" the District answered that there would be none. A wood smoke public awareness program is indeed a critically important element in a PM reduction program, but for the District to make this a "new or amended measure", and to avoid this proposed measure from being "substantially similar to a control measure already adopted by the district", it seems the program must necessarily be expanded in scope and objective.

feature stories and op-ed pieces on health effects and costs of wood burning; increased outreach to cities and counties on the model wood smoke ordinance; lowering the Spare the Air Tonight threshold; and other activities.

While the District's overall FY 2005/2006 budget has already been adopted, substantially more resources will be devoted to outreach on wood smoke this year (approximately two additional FTEs and approximately \$40,000 in direct costs).

Compliance with SB 656

3). The District has identified for further study and evaluation ARB Control Measures #2 and #4-12. The law does not seem to provide a provision for further study. Rather it calls for the district to "adopt an implementation schedule for the most costeffective local measures from the list for that district after prioritizing the measures based on the factors identified in subparagraph (A) of paragraph (2)." Furthermore, the district is expected to "Prioritize adoption and implementation of proposed control measures based on the effect individual control measures will have on public health, air quality, and emission reductions, and on the cost-effectiveness of each control measure." According to the ARB, in the winter in the San Francisco Bay Area Air Basin "...wood smoke from residential wood combustion and cooking becomes the main component of fine particulate matter, followed by fossil fuel sources." If this is the case, it would follow that if the district did prioritize the ARB Control Measures according to

3). Identifying measures for further study is not specifically proposed in SB 656 or ARB guidance, nor is it precluded. As seen in the District's ozone planning process, measures identified for further study often do result in regulatory or programmatic implementation. The District considers it to be more health protective to continue to evaluate (and in many cases implement) certain measures whose feasibility requires further analysis, rather than reject them during initial evaluation.

The District has determined, through our preliminary evaluation of the measures listed for "further study", that insufficient information currently exists to determine that these measures meet the appropriate standards of technical feasibility, total emission reduction potential, rate of emissions reduction, public acceptability, enforcement and cost-effectiveness per Health and Safety Code Section 40922, to include in a PM Implementation

section 40922 of the California Health and Safety Code, several of the ARB Control Measures that pertain to wood-burning fireplaces and wood-burning heaters would be placed on the implementation schedule. Control Measures 2, 4, 11 and 12 in particular are measures that would appear to meet the standard of protecting "public health, air quality, and emission reductions, and on the cost-effectiveness of each control measure."

Schedule at this time. Therefore, in lieu of eliminating these measures from consideration due to the preliminary evaluation, the District has decided to perform a more detailed evaluation of the "further study" measures to determine if they could meet the criteria for adoption at some point in the future. The District has begun a comprehensive evaluation of residential wood-burning in the Bay Area in order to determine if these or other regulatory control measures would be appropriate for the District.

In order to improve the emission inventory for wood smoke and to better identify areas that may be particularly affected by wood smoke, the District will be implementing a focused air monitoring study in specific neighborhoods this winter. The District will also conduct an extensive survey of wood burning activity. These studies will help identify factors that are conducive to high particulate matter concentrations in residential neighborhoods from wood-stoves and fireplaces. They will also help determine how such things as meteorology and localized topography, the moisture content of wood, the number and types of wood-burning appliances being used in a residence, the purpose of the burning, the type of material being burned, the frequency of the burning, and the number of residences burning in a particular neighborhood at one time all combine to affect particulate matter concentration.

District staff will also be tracking the development and implementation of similar rules, regulations and Control District, Puget Sound Clean Air Agency in Washington State and other regulatory agencies.

Diesel Engine Pollution 2

John Clifton (email October 10, 2005): Suggests District support use of "multi-fuel engines" for rail and generators as a way to control emissions from diesel engines.

programs in the San Joaquin Valley Air Pollution

The District supports a variety of technologies to reduce emissions of PM from diesel engines. Through the District's various funding programs. such as the Carl Mover program, the Low-Emission School Bus program, the TFCA, and the solid waste collection program, the District provides funding to fleets to install new engines and\or add on equipment to reduce PM and PM precursors. In addition, the District's PM Implementation Schedule calls for rule making to further reduce PM from stationary internal combustion engines (ICE) in 2006. The District will consider all opportunities, including multi-fuel engines, that will provide PM emissions benefits from stationary and mobile diesel engines in its rule development effort on stationary ICEs and the mobile source grant programs.

However, only the California Air Resources Board (CARB), not individual air districts, has the authority to regulate and mandate the use of specific engines and fuels. In addition, multi-fuel engines are not a measure that was listed in the CARB list of 103 air. district measures being used in California under SB 656.

3 Wood smoke and Wood burning

Jenny Bard/American Lung Association (email October 13, 2005): Urged the District to address

Please see response to Comment 1.2 & 1.3 above.

wood burning by specifically: Prohibiting the use of wood-burning appliances, fireplaces and/or heaters during periods when atmospheric conditions and the level of wood-burning activity are predicted to result in high PM concentrations; setting moisture standard for "seasoned wood" offered for sale; prohibiting the burning of materials not intended for use in wood-burning fireplaces and wood-burning heaters (e.g. garbage, treated wood and plastic products).

4 Wood smoke and wood burning at the neighborhood level Romas Simonaitis (email letter October 14, 2005): Concerned about the local (neighborhood) level of wood smoke pollution in his neighborhood in Rincon Valley, Santa Rosa (Sonoma County). Complains that neighbors use EPA-certified wood burning appliances to heat their homes but the accumulation of smoke and odors makes walking outside during the winter months impossible. Believes that the District's existing voluntary Spare the Air Tonight program is ineffective. Suggests that the problem be looked at on a "case by case" basis and not just regionally and that "appropriate measures" be taken to address the issue.

5 Sewer Gas/Particle Emissions **Jack G. Ohringer** (letter September 20, 2005): Suggests District consider a "normally closed vent system" that addresses sewer gas/particle emissions for building plumbing vents. Please see response to Comment 1.2 & 1.3 above.

Part of the District's efforts to determine the local impact of wood burning will include discussions with community members who report localized, neighborhood-level PM build-up as a result of wood burning. The District encourages community members to contact the agency to report such incidents. In addition, localized monitoring of air quality in neighborhoods particularly affected by wood smoke will be conducted beginning in November 2005 as part of the wood burning air monitoring activities.

The District will consider new technologies to reduce PM that are feasible and will provide cost-effective emissions reductions. However, this type of emissions source was not identified in ARB's SB 656 list of measures being used in any air district in California.

6 Wood smoke and wood

Fred Mundy (email October 18, 2005): Concerned

Please see responses to Comments 1.2, 1.3 and 4

burning

about wood smoke pollution in his neighborhood in San Geronimo Valley, Marin County. Suggests the District address wood burning and specifically limit moisture content in wood that can be burned. above.

7

Linda Weiner/Clean Air Taskforce (email October 18, 2005):

1) The staff report does not delineate those

Clarity of District evaluations of SB 656 measures

- 1). The staff report does not delineate those measures that the Air District may have already adopted and those measures that the Air District chose not to pursue. Moreover, the report provides no explanation as to why measures have been rejected.
- 1). Table 2 of the SB 656 Staff Report summarizes and categorizes the results of the District's evaluation of the 103 measures listed by ARB in the SB 656 program. The final staff report and appendices provide additional information on the District's evaluation. In particular, please see Attachment A, "BAAQMD Review of SB 656 List of Air District Measures" for the evaluation results.

Incentives for modernization of HDD fleets

- 2). No Air District rules are identified by name or number, thus making it difficult to determine how stringent these measures are compared to similar measures at other air districts throughout the state. For example, one of the measures, number 96, refers to the Sacramento Emergency Clean Air Transportation Program, which is not currently being implemented by the Sacramento Metropolitan Air Quality Management District and therefore should not have been listed. Urges the Bay Area Air Quality Management District to adopt a similar program featuring fleet modernization for older trucks.
- 2). The SECAT program included special legislation that provided the SMAQMD with additional funding for incentives for engine retrofits and fleet modernization for heavy duty diesel vehicles (HDDV). This legislation and funding applied only to the Sacramento region. The BAAQMD currently operates a number incentive programs for HDDVs including the Carl Moyer program, the Low Emission School Bus program, and the solid waste collection vehicles program. With recent changes in the guidelines for the disbursement of funding under the Carl Moyer program, the District anticipates that we will be offering more funding opportunities for fleet modernization efforts for diesel engine retrofits and HDDVs in the region.

Employer Trip Reduction measures

- 3). The Air District states that it lacks authority to regulate two measures covering On-Road Motor
- 3). The District may not mandate employer based trip reduction programs. Voluntary measures,

Vehicle Mitigation Options and Transportation Outreach Programs, the latter currently conducted by The Ventura County APCD. It is not clear how the Ventura County APCD has special authority beyond this Air District. however, have proven to be an effective means of achieving reductions from these transportation sources. Through the Bay CAP program the District partners with employers and business groups to promote trip reduction and other emission reduction programs. The District's Spare the Air program includes over 2,250 employers with over a million employees. The District administers and\or funds numerous employer trip reduction programs. TFCA funds support MTC's Regional Rideshare programs, county level rideshare programs, and rideshare and transit programs at schools and universities. These measures will produce real reduction and are thought to be more effective than a simple registration program as the Ventura County measure.

Glass-coatings operations

4). Six measures are listed as having insignificant potential emissions reductions; however there is no explanation as to how they are insignificant. One measure, 69 Controlling Glass Coatings, appears to be significant, as the Owens-Brockway Glass Container facility is one of the major PM emitters in the Bay Area. Perhaps similar controls are already in place under measure 77 VOC Coatings Content; however, it is difficult to determine this from the staff report.

4). The insignificant potential emission reduction category includes measures with very few or no Bay Area sources, or measures for which the difference in specific requirements in the measure listed by ARB verses existing District measures would not result in cost effective emission reductions. The Owens-Brockway Glass Container facility is a Bay Area glass manufacturing facility, but this facility does not operate glass coating equipment. It is therefore not subject to the standards that are part of measure 69 which only deals with glass coatings operations.

In regards to measure 77, there is one facility in the Bay Area (not Owens-Brockway Glass) that would be subject to this measure. This facility is currently under permit with VOC emission limits equivalent to

the standards in measure 77. Additional information on the District's evaluation is provided in Appendix A of the Staff Report.

Implementation Dates for Ozone Strategy Control Measures

5). Seven measures are listed as proposed Ozone Strategy Control Measures, but it would be more helpful if implementation dates were provided.

5). The measures that are being proposed as control measures in the 2005 Ozone Strategy will each undergo a separate rule making process. Table 10: Regulatory Agenda, 2005-2007 in the Draft 2005 Ozone Strategy addresses the proposed schedule for each measure's adoption (pg. 49 of the Draft Bay Area 2005 Ozone Strategy). More complete control measure descriptions are available in Appendix C of the 2005 Ozone Strategy.

Further Study Measures

- 6). Ten measures are listed as being identified for further study and evaluation. However, there appears to be no concrete commitment to pursue these measures or provide a potential implementation timeframe. Commenter suggests that there be no further delay.
- 6). Please see response to Comment 1.2 & 1.3 above.

Measures with no evaluations: Coke Calcining and Residential Water Heaters

- 7). Two measures are missing from the document, number 50 on petroleum coking and number 52 on residential water heaters. These appear to be worthwhile measures for the Air District to pursue.
- 7). The District has amended the Proposed PM Implementation Schedule Staff Report to include evaluations of these measures. Measure 50, regarding Coke Calcining operations, has been determined not to provide any additional emissions reduction benefits beyond existing District permit requirements. Measure 52, regarding residential water heaters, has been determined to have an equivalent District rule. Please see Appendix A for additional information.

Further input on PM reduction opportunities

- 8) Suggest meeting to share ideas to control PM, such as exploring measures to reduce PM from ports, railyards, distribution centers, airports and other significant industrial PM sources impacting residential communities. Measures could include, though not be limited to, truck replacement programs, shoreside power, truck-stop electrification, and more stringent CEQA requirements for construction. Since many of these measures are already in effect throughout the state, they may be found to be cost-effective.
- 8). These measures are not included in the ARB list of control measures. However, the District is open and willing to consider all opportunities to reduce PM in the region outside of the SB 656 process. District staff would be happy to meet with the Clean Air Task Force and other stakeholders to discuss potential PM reduction strategies.

Wood smoke and wood burning

- 9) At a minimum, suggest the implementation and adoption of the following CARB measures: a mandatory curtailment on wood burning during periods of PM concentrations that exceed the US EPA air quality index for healthy air; prohibition of the burning of garbage and other materials not intended for use in wood-burning heaters and fireplaces; and control of the moisture content of wood offered for sale.
- 9). Please see responses to Comments 1.2, 1.3 and 4 above.

Wood burning and wood smoke/opacity/controlled burn/ outdoor fireplaces

8

Miriam Spross (email: October 10, 2005):

Urged the District to restrict wood burning and wood smoke, specifically: Ban residential and commercial wood-burning appliances that pollute; establish an opacity rule and strict emission controls for wood-burning; forbid "controlled burns" near residential areas; forbid the sale of wood-burning "outdoor fireplaces" and chimneys.

Please see response to Comment 1.2 & 1.3 above. Open burning is generally prohibited in the Bay Area Air Quality Management District with the exception of certain types of fires allowed by Regulation 5: Open Burning. Controlled burning, such as that which is used by local, state, and federal fire officials to reduce the risk of catastrophic fires during times of high-fire danger, is permitted under current District regulations. Section 5-408 of the District's Regulation 5 describes the

requirements of controlled burning in the region. This information can be found on the internet at: http://www.baaqmd.gov/dst/regulations/rg0500.pdf

9 Wood smoke

American Lung Association of the East Bay (email, October 18, 2005):

Urged the District to adopt wood smoke regulations, specifically: mandatory curtailment of wood burning during periods of high PM concentrations that exceed US EPA air quality index for healthy air; prohibition of burning of garbage and other materials not intended for use in wood burning heaters and fireplaces; and control of the moisture content of wood offered for sale.

Please see response to Comment 1.2 & 1.3 above.

10 Internal Combustion Engines (ICE) Rule

Dennis Bolt/Western States Petroleum Association (email, October 18, 2005):

WSPA is concerned that the District's proposed PM control of stationary internal combustion engines will overlap with regulations recently adopted by CARB and thereby impose conflicting requirements on regulated parties. The concern is that after expending time, money and effort to comply with ARB's stationary IC engine rule the District will adopt controls that require those same engines to be retrofitted again or replaced within the 2006-2007 timeframe. Suggests avoiding the overlapping timeframe. Encourages the District to clarify its intent in regulating stationary ICEs and avoid requiring retrofit or replacement of engines brought into compliance with the ARB rule.

During the rule development process for amendments to District rules concerning IC engines, District staff will specifically seek to avoid any regulatory conflict with ARB's Air Toxics Control Measure (ATCM). Staff will work with stakeholders to identify any potential conflicts.

VERBAL COMMENTS RECEIVED DURING THE OCTOBER 11, 2005 PUBLIC WORKSHOP ON SB 656

11 Retrofitting existing CARB-Certified Internal Combustion Engines (ICE)

Gary Winslow/Headway Technologies:

Mr. Winslow's company recently purchased two emergency, diesel-fired systems that were CARB—certified. He asked if the District anticipates any rules related to PM for sustained sources that would require the generators to be retrofitted if they meet today's standards.

The District will be conducting a formal rule development process for regulatory amendments regarding internal combustion engines. The District will be looking at engines of varying sizes and specifications and will be seeking opportunities to reduce emissions from existing devices as well as new devices. Staff will review ARB's standards and consider that some engines meet current ARB standards. Also, please see response to Comment 10.

12 Internal Combustion Engines (ICE) Rule

Tery Lizarraga (Chevron):

1). Chevron is studying a number of engines to see if they should be replaced as part of the ARB rule – some do need to be replaced now. Concerned about going through the decision-making process now and finding out a year later that it was flawed because Chevron would need additional controls based on new District rules. Suggests that the District should merge the ARB ATCM and its rule making processes together so companies can know if engines need to be replaced in their entirety or to meet with the specs. Would like to not have to go through process of replacing engines for CARB ATCM process and then have new standards applied from the District's new rules.

1). The District will be sensitive to this potential conflict with ARB standards in the rule making process and will not want to conflict with ARB standards. Staff will be evaluating what is most appropriate for the Bay Area region and will be reviewing rules that have been implemented elsewhere in the state. The District encourages stakeholders to also review those rules. Staff will be evaluating those measures that have proved most cost-effective. The District encourages all stakeholders to participate in the public process during rulemaking and to meet with staff to discuss specific concerns. Because the rulemaking process has not yet begun, it is not possible to say how specific engines will be affected.

2). Could the State ATCM effort be delayed so that
these efforts can come together?

2). The District does not have authority to delay the State ATCM process. As noted above, however, staff will consider the State ATCM requirements in any new District rule development.

13 Internal Combustion Engines (ICE) Rule

Mike DeLeon (Tesoro):

Suggested that it would be useful to discuss the District's new rule making intentions with ARB to note how the conflicting schedules can be reconciled.

Please see response to Comment 10. The District will consult with ARB during the rule development process.

14 Internal Combustion Engines (ICE) Rule

Dennis Bolt (Western States Petroleum Assoc.): Commented that the time frame for adoption of a new ICE rule is very aggressive. Stated that the District has "an emissions inventory that is in flux because you have people who are coming into compliance with State standards. You can't do cost-effectiveness without a proper inventory." Suggests a phased-in adoption time out for retrofits. Believes that implementation of a new rule next year will result in the high probability of unfair or inaccurate rules.

Please see response to Comment 10. Refinement of the emission inventory is an important element of the rule development process.

15 Wood burning

Ken Mandelbaum (American Lung Association):

Mr. Mendelbaum's comments mainly concerned wood burning.

- 1). Wood burning is a stationary source with no economic benefit and controlling wood burning would provide the greatest health benefits with the least economic costs.
- 1). Please see response to Comments 1.2 & 1.3 above.
- 2). What is the threshold for Spare the Air nights?
- 2). The current threshold for Spare the Air Tonight

- 3). Is the District studying Washington State's wood burning law? They just went though a process to see what they should set as a standard, and it may be a good model for the District.
- 4). What portion of the District's public education budget is dedicated to wood smoke education?

- alerts is 150 Air Quality Index (AQI). As indicated in the PM Implementation Schedule Staff Report, the District will be lowering the threshold for announcing Spare the Air Tonight alerts to 130 AQI beginning in November 2005. This new threshold will be more protective of the health of sensitive populations in the Bay Area.
- 3). The District will continue to study regulations and policies in Washington State as well as other parts of the country.
- 4). The District's full operating budget is available by request, however the budget does not necessarily specify how money is allocated for specific issues such as wood burning. Various District Divisions are involved in wood burning related activities. These include the Public Information and Outreach Division, which operates the Spare the Air Tonight program and works with the media and communities to educate the public about the impacts of wood burning; the Technical Services Division, which operates the District's air monitoring equipment and analyzes PM data as well as forecasts conditions that result in the calling of Spare the Air Tonight alerts; the Enforcement Division, which responds to complaints and issues citations; and the Planning and Research Division, which develops rules, regulations, and programs related to PM. Each of these divisions' employs staff and, in some cases contractors, to carry out their duties.

- 5). Referring to Section 40922 of the Health and Safety Code, the District was supposed to prioritize the ARB measures from the most cost-effective to the least cost-effective. Will that list be made available?
- 5). Please see response to Comment 1.1

- 6). Some measures on the ARB list are scheduled for further study. In SB 656 there is no provision to schedule measures for further study. Thought a list was to be drafted of the most cost-effective measures to the least cost-effective measures in order to compile an implementation schedule.
- 6). Please see response to Comment 1.2 & 1.3 above.

16 PM Monitoring Data

Steve Ziman (Chevron): Tried to find PM monitoring data on the District website. Didn't see the design standards for the monitors or what the breakouts are. This information would be useful in order to relate what Chevron is doing in terms of cost-effectiveness and how this affects attainment. Still unsure of what the modeling data looks like. Suggests expanding the website to improve better understanding.

The Air District currently operates 5 continuous PM2.5 monitors. The continuous PM2.5 monitors provide one-hour average concentrations of PM_{2.5}. In order to access those hourly measurements. please visit the District's web site at http://gate1.baaqmd.gov/aqmet/aq.aspx; then select BAM PM_{2.5}; and the average will be shown on the right hand side of the table. Twenty-four (midnight to midnight) one-hour measurements are required to calculate the 24-hour average. Filter based PM_{2.5} and PM₁₀ data are not available until several days after the sampling because the filters must be transported to the District laboratory, equilibrated to a standard temperature and humidity, and then weighed. Data from filter based measurements are available on the District's annual air quality summaries, also posted online.

Wood BurningAndNO_x and Nitrates as PM

Sam Altschuler (PG&E):

- 1). It will be a tough year due to natural gas prices and people will be burning more wood this winter.
- 1). The District's enhanced public education and outreach regarding wood burning will address

precursors

Fireplaces are not only polluting but inefficient.

Need to get the information out there to the public.

Wood burning is a four month season and not sure what the monitoring data reflects. Annual emissions data would not reflect the true nature of wood burning.

health effects and costs of heating with wood compared to other fuels.

- 2). If the District goes after NOx as a PM nitrate, the District should also have to look at the speciation of NOx rather than just the total. Have to make sure not to raise the NOx levels due to implementing a control measure for PM. There are diesel PM control strategies such as electrification and particulate traps for mobile and stationary sources. District should look at the relationship between PM nitrate and ozone.
- 2). During the rule making process, the District will look at the overall air quality benefits associated with controlling NOx emissions to reduce secondary PM and other air pollutants.

18 Internal Combustion Engines (ICE) Rule

Travis Clark (UCSF):

When the District addresses ICE emergency diesel generators, he encourages the District to consider that the State is applying minimum times for testing. Would like the District to address how to reconcile this with the maximum running times that may be suggested.

Please see response to Comment 10.

19 Charbroiling

Gary Winslow/Headway Technologies:

What is a commercial charbroiling operation? Can you give examples?

During the rule development process, the District will focus on chain-driven charbroilers used in large-scale commercial food preparation, such as those used in certain fast-food restaurants. This is because it is easier to install catalytic devices on chain-driven charbroilers due to their size and smaller air-flows.

20 Internal Combustion Engines (ICE) Rule

Cory LaVign (Livermore Valley Transit Authority):

- 1) With regards to the generator standards, LVTA has had daunting experiences with diesel and addon particulate traps. Suggests that the District support a developed technology and, in particular, one that it isn't going to be onerous for emergency generators and should include exemptions.
- 2). What is the CARE program?

1). Please see response to Comment 10.

2). The CARE program is a separate District project to study the cumulative health risks of air pollution in the Bay Area through the development of a gridded inventory of the entire region. Results of the CARE program will highlight areas that have the highest concentration of toxic air pollutants, so that the District can better target future mitigation strategies.